

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512

**DRAFT STAFF ANALYSIS****FOR THE CALPINE CORPORATION'S PETITION TO AMEND
THE COMMISSION DECISION FOR THE
LOS MEDANOS ENERGY CENTER PROJECT
(98-AFC-1C)**

On August 22, 2000, the California Energy Commission (Energy Commission) received a petition from the Calpine Corporation, owner/operator of the Los Medanos Energy Center Project (Los Medanos), to amend Commission Decision 98-AFC-1. The petition filed by the Calpine Corporation contains a proposal to modify the project's backup water source for the process make-up and cooling water systems.

BACKGROUND

Los Medanos is a nominal 500-megawatt combined cycle power plant located south of East 3rd Street between Harbor and Columbia Streets within the corporate boundaries of the City of Pittsburg in eastern Contra Costa County just south of the New York Slough.

Los Medanos, formerly the Pittsburg District Energy Facility, was certified by the Energy Commission on August 17, 1999. Construction of the project commenced in September 1999 and is approximately 48 percent completed.

SUMMARY OF DRAFT STAFF ANALYSIS

The proposed modification is an administrative change. The project owner is proposing to add the Contra Costa Water District as a second source for provision of backup water for Los Medanos. The proposed modification will not cause any environmental impacts and only requires a change to the language in condition of certification SOIL & WATER-FIVE.

FURTHER INFORMATION

Persons who have questions regarding the analysis may contact Jeri Scott, Compliance Project Manager, by telephone at (916) 654-4228 or by e-mail at jscott@energy.state.ca.us.

If you wish to submit written comments concerning the enclosed staff analysis, your comments must be received no later than January 8, 2001.

SOIL AND WATER RESOURCES

Joe O'Hagan

INTRODUCTION

The Energy Commission issued a license for the Pittsburg District Energy Facility (PDEF) on August 17, 1999. Calpine Construction Finance Company (Calpine) purchased PDEF from its original owner and renamed the facility Los Medanos Energy Center (Los Medanos)

Calpine is proposing to amend the Commission Decision for Los Mendanos to allow for the use of raw water from the Contra Costa Canal as a backup water supply in addition to potable water from the City of Pittsburg.

This document briefly summarizes the requested change, which is administrative in nature, and includes staff's recommendations with respect to the proposed change.

PROPOSED CHANGES

The project as licensed, utilizes two sources of water: 1) potable water from the City of Pittsburg; and 2) tertiary treated recycled water from the Delta-Diablo Wastewater Treatment Facility (Delta-Diablo). The potable water will be used for firewater, drinking water, and sanitary facilities while the recycled water will be used for process water demands and as make-up for the cooling tower blowdown, evaporation, etc.

As licensed, potable water from the City cannot be used for process water demands unless there is an interruption in the delivery of tertiary treated wastewater from Delta-Diablo. It is expected that any interruptions to the delivery of treated wastewater to the project will be rare and of short duration.

Furthermore, Condition of Certification Soil & Water-Five limits the project's use of City potable water as a backup source, for process water, to three consecutive days without Commission approval. Recognizing the large demand placed on the City to supply the project with potable water during such interruptions, Calpine is proposing to use raw water from the Contra Costa Water District as an alternative backup source.

The Contra Costa Water District provides the Cities of Pittsburg and Antioch with 80 percent and 40 percent of their respective water supplies via the 48-mile long Contra Costa Canal. Los Mendanos would also be supplied, when necessary, from this canal through an existing Contra Costa Water District water line located at Arcy Lane, adjacent to the Delta Diablo. Connecting the Contra Costa Water District water line to Los Medanos recycled water line can be accomplished at the Delta Diablo Title 22 facility without any additional construction required.

Given an interruption in wastewater availability, the water demand for the project from the backup water sources would be approximately 3,500 gallons per minute (gpm). Discussions with the Contra Costa Water District as part of staff's analysis of the Los Mendanos Project and the Delta Energy Center Project (98-AFC-3) indicated that the district has sufficient water for industrial uses. The City of Pittsburg agrees with the use of water from the Contra Costa Water District as a second back up source.

MITIGATION MEASURES AND CONDITIONS

Calpine, as part of their amendment request proposed the following modification to Condition of Certification of Soil & Water Five. The proposed change is underlined and bolded.

SOIL & WATER FIVE:

The project owner shall operate the project using only tertiary treated effluent for cooling and steam cycle processes. Back-up water from the City of Pittsburg **or the Contra Costa Water District** should only be used for these processes when there is an interruption in the delivery of tertiary treated effluent. Operation of the facility on the back-up water supply longer than three consecutive days requires notification of the Energy Commission CPM. Operation of the facility on back-up water shall not continue for more than two weeks without Energy Commission Approval.

Verification: The project owner shall notify the Energy Commission CPM by phone and in writing if the back-up water supply is used for more than three consecutive days. Notification should explain the cause of the interruption and the anticipated time when tertiary treated effluent is again available.

CONCLUSIONS AND RECOMMENDATIONS

Staff recommends approval of the proposed amendment. Given the proposed revision to Soil & Water Condition of Certification-5, any impacts to the backup water supplies should be of short duration.

